

KRYKH, B.V.; SAKHRIN, M.G.

Calculated formulas for the determination of the specific
weight and the weight of the components of cement-clay slurries.
Neft. 1 gaz. prom. no.2:28-29 Ap-Je '64. (MIRA 17:9)

SAKHRIN, M.G.; KRYKH, B.V.; MELESHKO, M.I.

Results of laboratory investigations and field tests of
cement-clay mixtures. Trudy UkrNIGRI no.7:109-125 '63.
(MIRA 19:1)

1. SKLYARENKO, S. I., SAKHROV, B. A.
2. USSR (600)
4. Lithium Hydroxide
7. Preparation of lithium hydroxide by electrolysis of lithium chloride solutions.
Zhur. prikl. khim. 20 no. 5, 1947
9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

RAICHEV, R.; KRUSTEV, B. (St.N.Sutrudnitsi); SAKHTCHIEV, A. (Ml.M.sutrudnik)

Epithelial tumors of the salivary glands. Stomatologia, Sofia
no.2:22-32 1955.

1. Iz Nauchno-izsledovatel'skii onkologichen institut. Direktor;
prof. G.Tenchov.
(SALIVARY GLANDS, neoplasms,
epithelioma)

L 37639-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: AP6015604

(A)

SOURCE CODE: UR/0020/66/168/002/0288/0291

AUTHOR: Sakhnovich, L. A.

27
B

ORG: Odessa Electrical Engineering Communications Institute (Odesskiy elektrotekhnicheskii institut svyazi)

TITLE: The integral over a paraboloid and the Born first approximation

16

SOURCE: AN SSSR. Doklady, v. 168, no. 2, 1966, 288-291

TOPIC TAGS: integral calculus, asymptotic property, mathematic space, first approximation, continuous function, characteristic function

ABSTRACT: The equation

$$\Delta\psi + k^2\psi = qe^{ikx}$$

is examined. A particular solution can be written as

$$\psi_1(x, y, z) = -\frac{1}{4\pi} e^{ikx} \int e^{ik(s+t+u)} q(x+s, y+t, z+u) \frac{dv}{r},$$

where $r^2 = s^2 + t^2 + u^2$, $dv = ds dt du$. Let

$$|\Delta(s, t, u)| \geq \delta > 0.$$

If the functions $g_k, f_k = (s \partial q / \partial s + t \partial q / \partial t + u \partial q / \partial u + q)k$ are integrable over a paraboloid and q is bounded by γ_q , then

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UDC: 517.37

L 37639-66

ACC NR: AP6015604

$$\frac{d}{d\rho} I(q, \rho) = \frac{1}{\rho} I(f, \rho) + \frac{1}{2\pi\rho} \int \left(s \frac{\partial \Phi}{\partial s} + t \frac{\partial \Phi}{\partial t} + u \frac{\partial \Phi}{\partial u} \right) q(s, t, u) \varepsilon(s, t, u) \frac{\rho - 2s}{\Delta(s, t, u)} d\psi,$$

is valid, where $\varepsilon(P) = -1$ if $P(s, t, u)$ is the point of entry into body R_1 of the meridian of the paraboloid $\rho = str$, and $\varepsilon(P) = 1$ if P is the point of emergence. If

$$|q(x+s, y+t, z+u)| \leq \varphi_1(r, P), \quad |f(x, y, z; s, t, u)| \leq \varphi_2(r, P),$$

$$(r^2 = s^2 + t^2 + u^2),$$

where

$$f(x, y, z; s, t, u) = q(x+s, y+t, z+u) + (s \partial / \partial s + t \partial / \partial t + u \partial / \partial u) q(x+s, y+t, z+u),$$

$$\int_0^\infty r^n \varphi_k(r, P) dr < \infty \quad (k=1, n=0, 1; k=2, n=0),$$

then

$$\Psi_1(x, y, z) = \frac{1}{2ik} e^{ikz} \left[\int_{-\infty}^z q(s, y, z) ds + \int_0^\infty e^{ik\rho} \frac{1}{\rho} I(f, P, \rho) d\rho \right].$$

This paper was presented by Academician L. S. Novikov on 14 August 1965. Orig. art. has: 15 formulas.

SUB CODE: 12/ SUBM DATE: 11Aug65/ ORIG REF: 001

Card 2/2 vmb

SAKHYYLLINA, G. T.

"Influence of Soporific Substances Upon the Restoration of the Function in the Blood-Deficient Central Nervous System of Frog. Acute Tests," Dok.AN, 51, No. 9, 1946.
c1946-.

SAKHYULINA, G. T.

"Effect of Soporifics Upon the Restoration of the Function of the Nervous System of a Frog Subjected to Anaemia. Chronical Tests," Dok.AN, 52, No. 1, 1946.

SAKHYULINA, G. T.

"Influence of Soporifics and Stimulants of the Nervous System Upon the Restoration of the Central Nervous System in Frogs Subjected to Anaemia," Dok.AN, 52, No.3, 1946.

SAKHYULINA, G.I.

Sequelae of anemia of the central nervous system in dogs.

Zh. vysshei nerv. deiat., Pavlova 1 no. 2:187-198 Mar-Apr 1951.

(CLML 22:5)

1. Department of the Physiology of Higher Nervous Activity,
Institute of Higher Nervous Activity of the Academy of Sciences USSR.

SAKHYULINA, G.T.

Method of registration of cerebral potentials in dogs in chronic conditions. Zh. vysshei nerv. deiat. Pavlova 1 no.3:457-461 May-June 1951.
(CJML 23:2)

1. Institute of Higher Nervous Activity, Academy of Sciences USSR.

SAKHYULINA, G.T.

Anemic trauma of the spinal cord of the dog and physiologic stimulation of the processes following functional restoration. Izv.Akad.nauk SSSR.Serbiol.,Moskva no.3:104-114 May-June 1951. (CJML 20:9)

1. Laboratory of physiological Chemistry of the Academy of Sciences USSR. 2. Presented by Academician A.I. Oparin.

VERKHOVSKAYA, I.N.:SAKHYULINA, G.T.

Effect of pain stimulus on bromides in the cerebrospinal fluid in dog; studies with the aid of radioactive bromine. Doklady Akad. nauk SSSR 87 no. 6:1075-1078 21 Dec 1952. (CML 23:5)

1. Presented by Academician A. I. Oparin 1 November 1952. 2. Institute of Biophysics of the Academy of Sciences USSR.

SAKHYULINA, G.T.
ALEKSANDROVSKAYA, M.M.; SAKHYULINA, G.T.

Histopathologic changes in the central nervous system in dogs
following prolonged anemia. Izv. AN SSSR. Ser.biol. no.1:82-93
Ja-F '55. (MLRA 8:3)

- Higher Nervous Activity*
1. Institut vysshey nervnoy deyatel'nosti Akademii nauk SSSR.
(ANEMIA, experimental,
CNS hist. changes in dogs)
(CENTRAL NERVOUS SYSTEM, physiology,
eff. of anemia in dogs)

USSR/Medicine - Neurophysiology

FD-2379

Card 1/1 Pub 154-10/18

Author : Sakhiulina, G. T.

Title : Peculiarities of conditioned reflex activity in dogs that have experienced prolonged "anemization" of the central nervous system.

Periodical : Zhur. vys. nerv. deyat. 57, 76-87, Jan/Feb 1955

Abstract : Results of experiments on dogs revealed that "anemization" of the central nervous system affects primarily the higher nervous activity, i.e., conditioned reflex reactions become disrupted and previously formed conditioned reflexes eventually become extinct. Ultimately new positive conditioned reflexes of a general nature are formed which do not readily become extinct. In some dogs experimented with, negative conditioned reflexes were completely absent. A rise in general excitability and pathological intensification of passive inhibition in the form of negative induction and a decrease in mobility of cortical processes are caused by a sharp decrease in the strength of cortical cells and a decrease in their capacity to develop active inhibition. Three tables and four diagrams. Seven Soviet references.

Institution: Laboratory of Physiology, Academy of Sciences USSR.

Submitted : September 20, 1954

SAKHULINA, G.T.

Modifications in the electroenceleograms of dogs in the process of formation and consolidation of conditioned reflexes. Dokl. AN SSSR 104 no.1:153-156 S '55. (MIRA 9:2)

1. Fiziologicheskaya laboratoriya Akademii nauk SSSR. Predstavleno akademikom L.A. Orbeli.

(Conditioned response) (Electroenceleography)

SAKHIULINA, G.T.

Changes in the electric activity of the brain during conditioned
response activity in the works of the 20th International Congress
of Physiologists. Zhur.vys.nerv.deiat. 7 no.1:164-167 Ja-F '57.
(ELECTROPHYSIOLOGY) (MIRA 10:10)

SAKHIULINA, G.T.

SAKHIULINA, G.T.

Relation of the formation of conditioned reflexes in dogs to
electroencephalographic changes [with summary in English], Zhur.vys.
nerv.deiat. 7 no.5:741-753 S-O '57. (MIRA 10:12)

1. Fiziologicheskaya laboratoriya Akademii nauk SSSR.

(ELECTROENCEPHALOGRAPHY,

in conditioned reflex form. in dogs (Rus))

(REFLEX, CONDITIONED,

eff. on EEG in dogs (Rus))

SAKHIULINA, G.T., MUKHAMEDOVA, Ye.A. (Moskva)

Electroencephalographic changes in man during the formation of
a motor habit. [with summary in English]. Zhur.vys.nerv. deiat.
8 no.4:491-498 Jl-Ag '58 (MIRA 11:9)

(BEHAVIOR,

motor habit form., eff. on EEG (Rus))

(MOVEMENTS,

same (Rus))

(ELECTROENCEPHALOGRAPHY,

eff. of motor habit form (Rus))

SAKIC, Dinko, doc. dr.

Industrial injuries of the eye. Med.glasn. 9 no.7-8:290-295
July-Aug 55.

1. Očno odeljenje Opće bolnice u Splitu (upravnik doc. dr.
D.Sakic)

(EYE, wds. & inj.

industr., (Ser))

(WOUNDS AND INJURIES,

industr. of eye (Ser))

SAKIC, Dinko, Doc., dr.

Dacryocystitis neonatorum. Med. glasn. 9 no.9:328-331
Sept 55.

1. Očno odjeljenje Opće bolnice u Splitu (sef doc. dr. D. Sakic).
(DACRYOCYSTITIS, in inf. & child,
newborn, clin. aspects & ther. (Ser))
(INFANT NEWBORN, dis.
dacryocystitis, clin aspects & ther. (Ser))

SAKIC, Dinko, dr.

Recurrent allergic palpebral edema in children. Liječn. vjesn.
86 no.2:173-181 F'64

1. Iz Odjela za bolesti oči u Opće bolnice u Splitu.

S

SAKIC, Mladen N., tekst. inž.

Analysis of the causes of low-quality textile fabrics in the production of wool industries. Tekstil Zagreb 13 no.2: 137-140 F '64.

1. Chief Technologist and Supervisor, Wool Fabric Enterprise, Vucje.

SAKIC, M.

An exciting bear hunt. In English. p.24. THROUGH YUGOSLAVIA.
(Turisticki savez Jugoslavije) Beograd. Vol. 4, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

Survey of the hunting grounds in Yugoslavia. In English. P.26.
THROUGH YUGOSLAVIA. (Turisticki savez Jugoslavije) Beograd. Vol. 4,
no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

Fishing areas of Yugoslavia. In English. p.28. THROUGH YUGOSLAVIA.
(Turisticki savez Jugoslavije) Beograd. Vol. 4, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

Apatin, the town on the river. In English, French, and German. p.33.
THROUGH YUGOSLAVIA. (Turisticki savez Jugoslavije) Beograd. Vol. 4, no.2,
1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

Ogulin. In English and German. p.36. THROUGH YUGOSLAVIA. (Turisticki savez Jugoslavije) Beograd. Vol. 4, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

Cuprija. In English. p.38. THROUGH YUGOSLAVIA. (Turisticki savez Jugoslavije) Beograd. Vol. 4, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, M.

On the banks of the Isonzo. In English and German. p.39. THROUGH
YUGOSLAVIA. (Turisticki savez Jugoslavije) Beograd. Vol. 4, no. 2, 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 5, No. 6, June 1956

SAKIC, Mladen, tekst. inz.

Quality standard in the wool weaving mills as a factor in
achieving high quality products. Tekstil Zagreb 13 no.6:490-
493 Je '64.

SAKIC, Vinko, inz.

Strains and stresses which should be taken into account in constructing the utensils welded under pressure. Brodogradnja 6 no.4:158-162 '55.

1. Jugoslovenski registar brodova, Split.

SAKIC, Vinko, inz.

Centralization of crank axles based on elastic deformations.
Brodogradnja 13 no.6:222-232 '62.

SAKIEL, Stanislaw; NOWICKI, Stanislaw

Rotary bed for patients with paralysis with severe conditions.
Chir. narz. ruchu 20 no.1:94-98 1955

1. Z Oddziału Urazowo-Ortopedycznego Szpitala Miejskiego Nr 4
w Stalinogrodzie. Ordynator: dr St.Nowicki.

(APPARATUS AND INSTRUMENTS,

rotary bed for patients with paralysis & in severe cond.)

(HOSPITALS,

rotary bed for patients with paralysis & in severe cond.)

(PARALYSIS,

rotary bed for paralysed patients)

SAKIEL, Stanislaw

ELWART, Wacław; SAKIEL, Stanisław

Control of urinary tract infection in patients with spinal cord injuries. Chir. narz. ruchu 22 no.3:353-357 1957.

1. Z Wojewodzkiego Szpitala Chirurgii Urazowej w Piekarach Slaskich.

Dyrektor i kierownik naukowy: Wl Sowinski.

(SPINAL CORD, wds. & inj.

compl., bladder paralysis, control of urinary infect. by
drainage & indwelling catheter (Pol))

(BLADDER, paralysis

caused by spinal cord inj., control of urinary infect.
by drainage & indwelling catheter (Pol))

SAKIEL, Stanislaw; ELWART, Wacław

Disability evaluation in cases of spinal injuries associated with cord lesions in the light of the new compensation bill. Chir. narz. rachu 22 no. 4:449-451 1957.

1. Z Oddziału Urazowo-Ortopedycznego Szpitala Miejskiego Nr. 4 w Katowicach. Ordynator: dr St. Nowicki. Katowice, Szpital Miejski Nr. 4.

(SPINE, fractures

causing spinal cord inj., disability evaluation in Poland (Pol))

(SPINAL CORD, wds. & inj.

caused by fract. of spine, disability evaluation in Poland (Pol))

(DISABILITY EVALUATION

of spinal fract. with spinal cord inj. in Poland (Pol))

SARILEK, J.

TECHNOLOGY

periodicals: PRUMYSL POTRAVIN Vol. 9, no. 12, Dec. 1958

SARILEK, J. Crystallization of lactose as a factor causing granular structure of creams. p. 627.

Monthly List of East European Accessions (E-EAI) LC Vol. 8, no. 5
May 1959, Unclass.

SAKILEK J.

CZECHOSLOVAKIA/Food Processing Industry.

H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 65962

Author : Sakilek Jiri, Orel Vitezslav

Inst :

Title : Industrial Production of Mayonnaise.

Orig Pub : Vyziva lidu, 1958, 13, No 4, 54-56.

Abstract : A review of the development of the production of mayonnaise in Czechoslovakia.

Card 1/1

39

SAKIN, I.L.; RESHINA, I.I.; SOLNTSEV, A.I.

Double monochromators. Opt.-mekh.prom. 25 no.4:2-8 Ap '58.

(MIRA 11:10)

(Monochromators)

7 (3), 24 (7)

AUTHORS: Golyandin, N. S., Ptitsyna, I. G.,
Reshina, I. I., Sakin, I. L.

SOV/48-23-10-26/39

TITLE: The Infrared Spectrometers IKS-14 and IKS-12

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 10, pp 1240-1243 (USSR)

ABSTRACT: These two Soviet devices are used for the rapid and accurate recording of absorption spectra. Figure 1 shows a full view of the device of the type IKS-14; it is used for the direct recording of absorption spectra within the range of 0.75-25 μ , and is suited for double- and single-beam operation. Recording is effected on a paper band moving at a rate of between 0.4 and 100 mm/min. The recording rate of the spectrum is between 0.01 and 1.5 μ /min. The mode of operation is discussed. Figure 2 shows two parts of polystyrene and ammonia spectra recorded by means of this device; in this case a LiF prism was used. The spectra recorded by means of this device showed good reproducibility ($\pm 1\%$). The infrared spectrometer of the type IKS-12 is a modernized form of the device of the type IKS-11 and has been produced in series since 1957. In this device amplification is effected by means of a two-cascade photo-

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The Infrared Spectrometers IKS-14 and IKS-12

SOV/48-23-10-26/39

electrooptical multiplier (FEOU-18) with a sensitivity of $0.6-1.10^{-9}$ w/mm and a linearity of $\pm 1\%$. Recording of the spectra is effected by means of an electronic potentiometer (EPP-09). The total sensitivity of the reception-amplification system is 4.10^{-10} w/mm. In order to increase the resolving power, additional scanning rates (30 and 15 min per rotation of the monochromator) were introduced. Also reproducibility is better than in the case of the first-mentioned device ($\pm 0.5\%$). The amount of light scattering is about 4%, resolution is about 1.4 cm^{-1} in the range of 800 cm^{-1} if a NaCl-prism is used. Figure 3 shows part of the ammonia spectrum recorded by means of this device. There are 3 figures and 3 Soviet references.

Card 2/2

LEBEDEV, Ye.I.; RESHINA, I.I.; SAKIN, I.L.

Attachment to infrared spectrometers. Zav.lab. 29 no.8:1000-1002
'63. (MIRA 16:9)

(Spectrometer)

L 15640-63

ACCESSION NR: AP3000832

S/0286/63/000/002/0014/0014

AUTHOR: Kocherginskiy, M. D., Pen'kova, L. F., Azimova, S. M., Shagiyan, Sh. K., Sakina, M. V. ⁴⁵

TITLE: Electrolyte-paste for air-zinc batteries. Class H 01m, 21b, 10 sub 02. No. 152670

SOURCE: Byul. izobreteniy i tovarnykh znakov. no. 2, 1963, 14

TOPIC TAGS: dry battery, electrolyte paste

ABSTRACT: Use of concentrated solutions of caustic potash of density not less than 1.50 and (or) caustic soda not less than 1.40 in any proportion as an electrolyte, and starch and (or) flour amounting to not less than 400 grams per liter of electrolyte as a thickening agent for air-zinc batteries, in order to increase the service life of the batteries and their shelf life prior to use. Orig. art. has: 1 figure (see Enclosure 1) [Abstracter's note: complete translation]

ASSOCIATION: none

SUBMITTED: 26Mar62

SUB CODE: GE

DATE ACQ: 28May63

NO REF SOV: 000

ENCL: 01

OTHER: 000

Card 1/4

YERSHIN, Sh.A.; SAKIPOV, Z.B.

Investigation of the initial section of the turbulent stream of
a compressible gas. Zhur.tekh.fiz. 29 no.1:51-60 Ja '59.

(MIRA 12:4)

1. Institut energetiki AN KazSSR, Alma-Ata.
(Gas flow)

31294

S/124/61/000/010/029/056
D251/D301

11.7200

AUTHORS: Yershin, Sh.A. and Sakilov, Z.B.

TITLE: Investigating the aerodynamics of an elementary gas jet

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 10, 1961, 84, abstract 10 B596 (Tr. in-ta energ. AN KazSSR, 1960, 2, 237-243)

TEXT: A short description is given of a scheme for the aerodynamic calculation of a gas jet. For calculating the jet of combustion of undisplaced gases it is proposed that a similarity exists between the profiles of velocity pressure and the mechanism of heat transfer, and the composition along the two sides of the zone of combustion is reckoned to be similar for the mechanism of heat transfer in a non-isothermal turbulent jet; also the velocity of reaction of the combustion is taken to be infinitely great. It is reckoned that the zone of combustion is established on the sur-

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Investigating the aerodynamics...

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S/124/61/000/010/029/056
D251/D301

face which corresponds to the stoichiometric relationship of the directions to that of the stream of reagents. The results of the aerodynamic and thermal calculations are presented for the combustion of a jet of benzene vapor in air, together with the corresponding experimental data. In consideration of the combustion of previously agitated gases, the position of the flame front in the turbulent boundary layer is determined according to the Guy-Michelson law. Referring to the absence of experimental data on the thermal and dynamical properties of a jet for the combustion of agitated gases, the author resorts to certain assumptions and analyzes them on the basis of the results of preliminary experiments. [Abstracter's note: Complete translation]

Card 2/2

SAKIPOV, Z. B. ; USTIMENKO, B. P.; PALATNIK, I. B.; LEONT'EVA, T. P.

"Thermal Problem of a Free (Jet) Turbulent Boundary Layer"

Report presented at the Conference on heat and Mass Transfer.
Minsk, USSR, 5-10 June 61

General problem of heat and Mass transfer are discussed and method of solution of heat and dynamic problems of stream flows is given in this paper. New experimental data for cold, low-heated flat and axis-symmetrical streams are presented.

h0773

S/124/62/000/009/012/026

A001/A101

11.0915
20.2182
AUTHOR:

Sakipov, Z. B.

TITLE:

On the ratio of coefficients of turbulent exchange of momentum and heat in a free turbulent jet

PERIODICAL:

Referativnyy zhurnal, Mekhanika, no. 9, 1962, 69, abstract 9B456
("Izv. AN KazSSR, Ser. energ.", 1961, no. 1 (19), 30 - 35, Kazakh summary)

TEXT:

It is shown by experiments that the ratio of coefficients of turbulent exchange of momentum (ν_T) and heat (a_T) in a free turbulent jet of an incompressible fluid does not depend on the physical properties (Prandtl number) of the latter. In distinction from a series of studies in which this ratio was determined for turbulent air jets, i.e. at the Prandtl number $P = 0.72$, the present work reports, for the first time, on careful measurements of profiles of velocity and temperature (at very small heating) in a turbulent jet of viscous oil whose Prandtl number $P \sim 10^3$. The profiles obtained for the main section of the jet (at a distance of 6 - 20 calibers from the nozzle aperture of 6 mm in diameter)

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On the ratio of coefficients of...

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coincided practically with the Ruden known data for the air jet. The experimental results indicate the ratio value for oil (as well as for air) $\nu_T/a_T \approx 0.7$. Analogous experiments will be conducted also for $P \ll 1$ (molten metal). Although the result obtained is not unexpected (which is pointed out also by the author), a direct experimental determination of so-called "turbulent Prandtl number" at the value of physical number P essentially different from unity, is of principal importance. There are 5 references.

L. A. Vulis

[Abstracter's note: Complete translation]

Card 2/2

SAKIPOV. Z. B.

A Contribution to the Mechanics of Turbulent Liquid and Gas Jets. p. 125

TRANSACTIONS OF THE 2ND REPUBLICAN CONFERENCE ON MATHEMATICS AND MECHANICS
(TRUDY VTOROY RESPUBLIKANSKOY KONFERENTSIY PO MATEMATIKE I MEKhanIKE), 184
pages, published by the Publishing House of the AS KAZAKH SSR, ALMA-ATA, USSR, 1962

S/031/63/000/002/001/001
B117/B186

AUTHORS: ~~Sakipov~~, Z. B., Temirbayev, D. Zh.

TITLE: Ratio between momentum and heat exchange coefficient in the free turbulent liquid metal jet

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Vestnik, no. 2, 1963, 79 - 80

TEXT: By analogy with the physical Prandtl number, the concept of the "turbulent Prandtl number" was introduced for the ratio between momentum and heat exchange coefficient in turbulent flow. No semiempirical theory, however, can explain the nature and the numerical significance of this number for different types of motion and its effect on the velocity and temperature profiles. For this reason the ratio in question was determined in an axisymmetric liquid jet (Hg) with the physical number $\sim 10^{-2}$. The fields of dynamic pressure and temperature were studied on different cross sections of the jet by a method described earlier and by means of a special device (1961). The velocity profile was measured with a Pitot tube with a mean error of 1 - 2 % in the region of the maximum velocity and 2.5 - 5 % at the edge of the jet. The temperature profile was measured by a differential nichrome-constantan thermocouple. The accuracy Card 1/2

Ratio between momentum and heat ... S/031/63/000/002/001/001
B117/B186

of measurement in the individual flow sections fluctuated between 2 and 15 %. The evaluation of the experimental data gave $\sigma_t = \sim 0.72 - 0.75$ for the ratio sought, although the physical Prandtl number in the experiments varied over a wide range from 10^{-2} (Hg) to 10^6 (transformer oil). Hence it can be assumed that over the main section of a free turbulent jet the value of the turbulent Prandtl number has a constant cross section and is independent of the physical properties of the liquid. Whether this also holds for other types of flows remains to be investigated. There is 1 figure.

Card 2/2

SAKIPOV, Z.B.; TEMIRBAYEV, D.Zh.

Relation of the coefficients of turbulent transfer of momentum
and heat in a free turbulent jet of liquid metal. Vest.An Kazakh.
SSR 19 no.2: 79-80 F '63.

(MIRA 16:5)

(Liquid metal)

VULIS, L. A. (Leningrad); KARELIN, V. Ye; PALATNIK, I. B.; SAKIPOV, Z.;
USTIMENKO, B. P. (Alma-Ata)

"Laws of propagation of turbulent compressible gas jets"

report presented at the 2nd All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 29 Jan - 5 Feb 1964.

ALIYAROV, B. K.; SAKIPOV, Z. B.; YARIN, L. P.

"Jet shielding of surfaces with regular macro-roughness."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12
May 1964.

Power Inst, A.S. KazSSR.

SAKPOV, Z.

Experimental study of semibounded jst. Probl. teploenerg. i prikl.
teplotiz. no.1329-4,5 '64. (MIRA 13:8)

L 52270-65 EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(1) Pd-1

ACCESSION NR: AT5011662

UR/3149/64/000/001/0029/0046

AUTHOR: Sakipov, Z.

TITLE: Experimental investigation of semibounded currents

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy institut energetiki. Problemy teploenergetiki i prikladnoy teplofiziki, no. 1, 1964, Prikladnaya teplofizika, 29-46

TOPIC TAGS: semibounded fluid flow, solid surface flow stabilization, boundary flow velocity, boundary flow temperature, laminar semibounded flow, turbulent flow

ABSTRACT: In recent years, great practical and theoretical emphasis has been placed on the study of viscous liquids or gases bounded from one side (semibounded) by solid surfaces. Suitable experiments of this kind, investigating the flow of air, water, and transformer oil along plane and cylindrical surfaces, were carried out at the Laboratoriya teplofiziki (Laboratory of Heat Physics) of the Institut energetiki (Power Engineering Institute). The results for the planar case were published earlier (L.A. Vulis, A.T. Trofimenko, Z.B. Sakipov, Izvestiya AN SSSR. Otdeleniye tekhnicheskikh nauk (Mekhanika i mashinostroyeniye), 1962, no. 3) and agree with data obtained at the KazGU (A.T. Trofimenko, Uchenyye zapiski KazGU im. S.M. Kirova, v. 30, no. 5,

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L 52270-65

ACCESSION NR: AT5011662

1957). After describing the experimental devices and measuring procedures, the present paper gives the corresponding results for a smooth cylindrical surface. Tests led to the discovery of the stabilizing influence of the solid surface not only on the flow within the boundary layer but also in the exterior portion of the flow. Namely, the flow within the axially symmetrical boundary current remained generally laminar up to a Re_0 number value which exceeded by 20-30 times those Re_0 values ($\sim 15-30$) for which, in free flow, the currents become fully turbulent. The universal profile of excess temperature together with a universal velocity profile for similar boundary temperature and velocity conditions appearing along the smooth cylindrical surface point to regularities in the distribution of turbulent friction and momentum transfers across the cross section of the semibounded current. It should be noted that all these results are based on the measurements of average velocities and temperatures. New data could emerge, in principle, during future studies of the pulsation structure of semibounded flows. Such studies could then establish the limits of validity of the generalized Newton's law of turbulent flows with asymmetrical velocity and temperature profiles. "The author is deeply indebted to Professor L.A. Vulis for his guidance during the investigation."

Orig. art. has: 7 formulas and 17 figures.

ASSOCIATION: None

Card 2/3

L 52270-65

ACCESSION NR: AT5011662

SUBMITTED: 00

ENCL: 00

SUB CODE: ME

NO REF SOV: ME

OTHER: 005

gah
Cdd 3/3

L 00565-66 EWT(1)/EWP(m)/EPF(c)/EPF(n)-2/EWG(m) WW

ACCESSION NR: AR5019365

UR/0124/65/000/007/B103/B103

SOURCE: Ref. zh. Mekhanika, Abs. 7B736

AUTHOR: Sakipov, Z.; Temirbayev, D. Zh.

TITLE: Momentum and heat transfer in a free turbulent stream

CITED SOURCE: Sb. Probl. teploenerg. i prikl. teplofiz. Vyp. 1, Alma-Ata, AN KazSSR, 1964, 47-72

TOPIC TAGS: free turbulent stream, momentum transfer, heat transfer, turbulent jet

TRANSLATION: The authors completed an experimental study of motion and heat exchange in lightly heated turbulent streams of various fluids submerged in an environment with analogous physical properties. The study sought to define the turbulent Pr number for streams of liquids with a physical Pr number in the range of 0.022 (Hg) to 350 (transformer oil). Other experiments involved streams of air and water. Velocity head and temperature at various cross sections of the stream, from 6 to 25 calibers distant from the nozzle; were measured by a Pitot tube and a Nichrome-Constantan thermocouple (the latter alloy contains 55% Co, 45% Ni). Initial measurement data were processed in the form of dimensionless velocity (related to its maximum value u_m at a given cross section) and dimen-

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ACCESSION NR: AR5019365

sionless excess temperature as functions of the coordinate of similarity $\phi=y/ax$. Also, curves were plotted to show the attenuation of axial velocity and temperature along the stream. It was noted that distributions of velocity and temperature within the studied range of layout parameters do not depend on the physical properties of a liquid. The authors used two methods to define the turbulent Pr numbers σ_t for the flows in question: the ratio of characteristic values of depth of the thermal and dynamic layers, and the exponent in relation $\Delta T/\Delta T_m=(u/u_m)\sigma_t$. Analysis of results obtained in the process led the authors to conclude that the turbulent agitation process does not depend on physical characteristics of the fluid comprising the stream. Specifically, σ_t is a hydrodynamic property of a stream and can be considered as within the range of 0.70 - 0.75 for all experimental variants. Analogous values of σ_t were cited in reports of other authors studying the propagation of turbulent air streams. Bibl. with 8 titles. O V. Yakovlevskiy

SUB CODE: TD, ME

ENCL: 00

Card

df
2/2

L 01945-67 EWP(m)/EWT(1) WW

ACC NR: AR6021879 (N) SOURCE CODE: UR/0124/66/000/003/B113/B113

AUTHOR: Sakipov, Z. B.

55
B

TITLE: Experimental study of turbulent flows

SOURCE: Ref. zh. Mekhanika, Abs. 3B752

REF SOURCE: Sb. Teoriya i raschet ventilyats. struy. L., 1965, 203-225

TOPIC TAGS: turbulent flow, turbulent jet, axisymmetric jet

ABSTRACT: The results of experimental studies of the propagation of turbulent flows are presented. In the first part of the paper, the results of investigation of momentum and heat transfer in a free turbulent flow are analyzed. The main region of axisymmetric, weakly heated jets of mercury, water, and transformer oil propagated in the same medium are studied. Velocity and temperature fields were measured for different cross sections of flows. The physical Prandtl numbers were measured in these experiments within the 0.02—350 range. The experiments show that the Prandtl turbulence number the ratio of the turbulent momentum and heat transfer coefficients. is not a physical constant of a fluid, but rather a hydrodynamic characteristic, with approximately similar value (0.72—0.75) for different fluids.

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L 01945-67

ACC NR: AR6021879

In the second part of the paper, the results on propagation of semilimited flows are investigated. An analysis was made of a two-dimensional semilimited jet and an axially propagated ring jet. Slotted nozzles with variable degrees of tightening were used in analyzing of flat semilimited jets. The velocity profiles in different cross-sections of the jet were measured. A universal profile is derived by plotting in dimensionless coordinates. The self-similar characteristics of the jet flows described by other authors were analyzed. Changes in the integral invariants were analyzed for the length problem of a two-dimensional semilimited jet; some conclusions were reached in respect to transition of laminar flows to turbulent flows. Experimentally derived data were used for determining the turbulent drag coefficient by the cross-sectional area of a plane semilimited flow. Orig. art. has a bibliography of 6 reference items. Yu. F. Dityakin. [Translation of abstract] [AM]

SUB CODE: 20/

Card 2/2 *gd*

ALIYAROV, B.K.; SAKIPOV, Z.; YARIN, L.P.

Some characteristics of flow along highly rough surfaces. Vest.
AN Kazakh SSR 21 no.4:80-84 Ap '65. (MIRA 18:5)

L 23981-66 EWT(1)/EWP(m)/EWT(m)/ETC(f)/EPF(n)-2/EWG(m)/EWA(d)/T/ETC(m)-6/EWA(1)

ACC NR: AT6006930

WW/DJ/BS

SOURCE CODE: UR/0000/65/000/000/0433/0440

AUTHOR: Aliyarov, B. K.; Sakipov, Z.; Yarin, L. P.

ORG: Power Institute, AN KazSSR (Institut energetiki AN KazSSR)

TITLE: Jet shielding of surfaces with regular macro-roughness

SOURCE: Teplo- i massoperenos. t. II Teplo- i massoperenos pri vzaimodeystvii tel s potokami zhidkostey i gazov (Heat and mass transfer v. 2: Heat and mass transfer in the interaction of bodies with liquid and gas flows). Minsk, Nauka i tekhnika, 1965, 433-440

TOPIC TAGS: gas jet, surface property, nozzle design, *heat transfer, turbulent flow*

ABSTRACT: Experiments with jets of transformer oil were made in a unit consisting of a reservoir, a specially shaped nozzle, and a hollow brass rod with a diameter of 20 mm placed concentrically with respect to the nozzle. The jet issued from an annular gap (5 mm) formed by the nozzle and the rod. A study of the aerodynamics and heat transfer in an axisymmetric-semi-infinite air jet with fully developed turbulent flow conditions was carried out in a similar unit at various values of initial velocity and excess temperature. Measurements were made of the velocity distribution (air and oil jets) and of the temperature (air jet)

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L 23981-66

ACC NR: AT6006930

at different transverse cross sections. Regular micro-roughness was obtained by placing steel tubes of different diameter on a smooth plate transverse to the flow. In these experiments, measurements were made of the distribution of the total pressure, the velocity, and the statistical pressure at different cross sections of the jet. Experimental results are exhibited in a series of curves. It is demonstrated that, with a semi-infinite jet propagating along a surface with regular macro-roughness, the maximum value of friction at the wall exists at values of the parameter $\bar{R}$ approximately equal to unity. It can be expected that the dependence of the heat transfer coefficient on $\bar{R}$ will be of an analogous nature. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 09Nov65/ ORIG REF: 004/ OTH REF: 002

Card 2/2 (1)

L 23980-66 EWT(1)/EWP(m)/EWT(m)/ETC(f)/EPF(n)-2/EWG(m)/EWA(d)/T/ETC(m)-6/

ACC NR: AT6006927 EWA(1) WW/DJ/GS SOURCE CODE: UR/0000/65/000/000/0407/0413

AUTHOR: Sakipov, Z. B.; Temirbayev, D. Zh,

ORG: Power Institute, AN KazSSR (Institut energetiki AN KazSSR)

TITLE: The relationship between the coefficients of turbulent momentum and heat transfer in a free turbulent jet /

SOURCE: Teplo- i massoperenos. t. II: Teplo- i massoperenos pri vzaimodeystvii tel s potokami zhidkostey i gazov (Heat and mass transfer. v. 2: Heat and mass transfer in the interaction of bodies with liquid and gas flows). Minsk, Nauka i tekhnika, 1965, 407-413

TOPIC TAGS: turbulent jet, mass transfer, heat transfer, fluid flow, gas dynamics

ABSTRACT: The experimental investigations were carried out on units described previously in the literature. Before the experiments on mercury and oil jets, a series of experiments were made on air and water. Three series of experiments were made on air jets at velocities of 20, 30, and 40 meter/sec, and two series of measurements on water jets at 1.8 and 4 meter/sec. The measurements were made by conventional methods. The average error in determination of the velocity was about

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L 23980-66

ACC NR: AT6006927 /

5%, and of the temperature about 10% from the maximum values at the axis of the jet. A figure shows the profile of the dimensionless velocity at various cross sections of an axisymmetric jet for various fluids, including mercury and transformer oil. The experimental results establish the independence of the process of turbulent flow from the physical nature of the liquid jet formed. In addition, it is demonstrated that the turbulent Prandtl number, determined as the ratio of the coefficients of momentum and heat transfer, is purely hydrodynamic characteristic of the jet, and does not depend on the physical constants of the fluid. Orig. art. has: 6 figures.

SUB CODE: 20/ SUBM DATE: 09Nov65/ ORIG REF: 003/ OTH REF: 004

Card 2/2 V

L 33771-66 ZMF(M)/ZMF(1) WW

ACC NR: AT6023749

SOURCE CODE: UR/3149/66 0/003/0106/0123

AUTHOR: Aliyarov, B. K.; Sakipov, Z.; Yarin, L. P.

ORG: none

TITLE: Experimental study of the principles of the propagation of turbulent, semiconfined jets, developing along smooth and tubular, flat surfaces.

SOURCE: Alma-Ata. Kazakhskiy nauchno-issledovatel'skiy institut energetiki. Problemy teploenergetiki i prikladnoy teplofiziki, no. 3, 1966, 106-123

TOPIC TAGS: air jet, aerodynamics, velocity profile, temperature profile, tubular flat surface, smooth surface, boundary layer problem

ABSTRACT: Experimental studies were made of the aerodynamics and heat exchange during the propagation of a semiconfined air jet along a smooth and a microrough flat tubular surface (see Fig. 1) to determine the cooling effect of the air jet on the surface. The temperatures and velocity profiles, friction coefficient, and the jet cooling efficiency coefficient were measured at temperatures $T = 300-650K$, $u_{\infty} = 14.5-29$ m/sec, $u_0 = 12.9-35.2$ m/sec, $b_0 = 10$ mm, with overheating parameters $w = T_{\infty}/T_0$ (2.00-3.00), concurrence parameters $m_u = u_{\infty}/u_0$ (0.44-1.68), and head pressure ratios $m_{u^2} = H_{\infty}/H_0$ (0.07-1.00). An analysis of the experimental data indicates that the aerodynamic and heat-exchange principles governing the flow of an

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L 38774-66

ACC NR: AT6023749

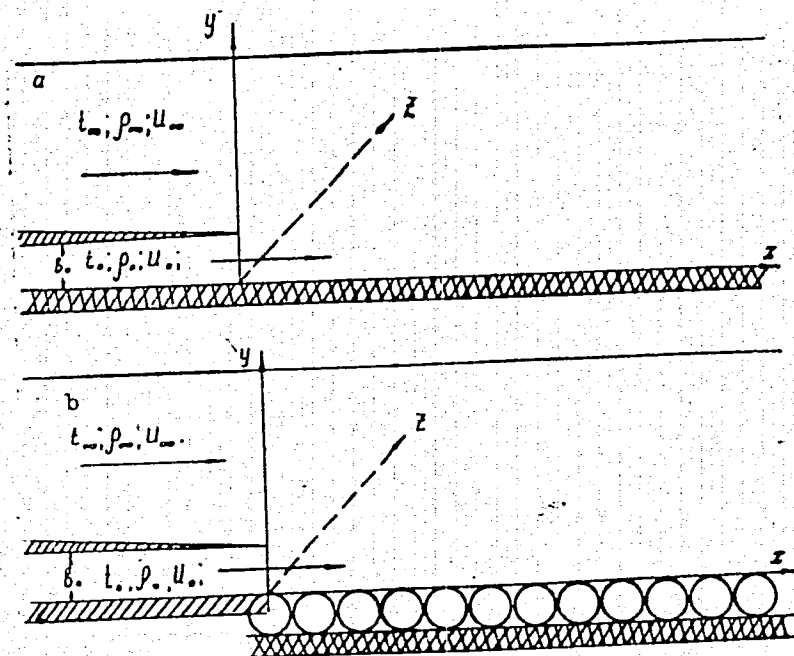


Fig. 1. Flow-diagram of a semiconfined air jet in a con-current flow.

a - Along a smooth surface;
b - along a microrough (tubular) surface; b_0 - width of the jet exit nozzle; t - temperature; ρ - density; u - velocity of the flow; ∞ - main flow; o - jet.

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ACC NR: AT6023749

air jet along a microrough surface in a concurrent flow are similar to those characteristic for the boundary layer formed during the flow of a jet along a rough plate. A similarity in the velocity and temperature profiles in various cross sections of the jet permits an approximate, semi-empirical calculation of its parameters using the previously postulated theory of turbulent jets (Abramovich, G. N. Teoriya turbulentnykh strui. M., Fizmatizdat, 1960). Orig. art. has: 13 figures and 2 tables.

[PS]

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 3/3 *16*

RIYEKST, A. [Rieksts, A.]; DIMZA, J., red.; SAKICANOVA, N., red.; FREIMANIS, V.,
tekh. red.

[Dimension diagrams; calculation of permissible tolerances for machine
and apparatus parts] Izmeru kedes; racionalu pielaizu aprekinasana
masinu un aparatu detalam. Riga, Latvijas Valsts izdevnieciba, 1960.
199 p. [In Latvian]. (MIRA 14:12)
(Dimensional analysis) (Tolerance (Engineering))

SAKIYEV, M.

For the efficient utilization of fixed assets. Sots.trud. 7
no.1:35-40 Ja '62. (MIRA 15:4)

(Labor productivity)

SAKK, T.S.

X-ray diagnosis of phytobezoars. Vest. rent. i rad. 38 no.1:
68 Ja-F'63. (MIRA 16:10)

1. Iz Respublikanskoy klinicheskoy bol'nitsy (glavnyy vrach
G.A.Kazbekov), Makhachkala.

*

SAKK, V., inzhener

Demonstration table showing the electrical equipment of the GAS-51
truck. Avt.transp.33 no.7:32 J1'55. (MIRA 8:12)
(Motor trucks--Electric equipment)

SAKK, V.; SAMUS', V.

Prickly nightshade. Zashch. rast. ot vred. i bol. 10 no.6:47-48
'65. (MIRA 18:7)

1. Krasnodarskaya karantinnaya inspektsiya.

SARK, V.

Subjugation of the desert. Sov.foto 22 no.4:1-4 of insert Ap
'62. (MIRA 15:4)

(Kara Kum--Description and travel)

COUNTRY	: USSR	
CATEGORY	: General and Specialized Zoology. Insects.	P
	Harmful Insects and Acarids.	
	Entomol., 1958, No. 105307	
AUTH.	: Likh, V. G.	
INSTR.	: Transmission of Phylloxera	
TITLE	: Do Not Permit Transmission of Phylloxera to New Vineyards.	
ORIG. PUB.	: S. Kh. Sev. Kavkaz, 1958, No. 2, 90-93	
ABSTRACT	: No abstract.	

Card: 1/1

SAKK, V. V.

V. V. Sakk and D. K. Kulikov

Determination of the End Orbit of The Comet 1925

Academy of Sci of the USSR, Inst. of Theoretical Astron.
Leningrad.

Vol. 4, No. 9, 1951, pp. 431-457.

From: Monthly List of Russian Accession
December 1951, Vol. 4, No. 9, p. 22

SAKKAYEV, Yu. G. (Moskva)

Evaluating the solution of a plane problem in the theory of
plasticity. Inzh. zhur. 2 no.4:361-364 '62.
(MIRA 16:1)

1. Institut mekhaniki AN SSSR.

(Plasticity)

KISELEV, M.I.; SAKKI, K.

Applicability of M.A. Leontovich's boundary conditions to anisotropic and gyrotropic dielectrics. Vest. Mosk. un. Ser. 3: Fiz., astron. 18 no.2:91-93 Mr-Apr '63. (MIRA 16:6)

1. Kafedra statisticheskoy fiziki i mekhaniki Moskovskogo universiteta.

(Electrodynamics)
(Boundary value problems)

MARTEM'YANOV, I.S.; SAKLAKOV, M.Ya.

Machine for making sheet plates for cooling tower sprinklers.
Rats. i izobr. predl. v stroi. no.116:24-26 '55. (MLRA 9:7)
(Woodworking machinery)

SARLAKOV, P. (Chelyabinsk); YEVDOKIMOVA, Anna; KISELEV, N.
(Novgorodskaya oblast', Shimskiy rayon)

We are friends with corn. IUn. nat. no.7:6-7 JI '61. (MIRA 14:7)

1. Starosta kruzha yunnatov, Alekseyevskaya shkola, Kurskaya oblast' (for Yevdokimova).
(Corn (Maize))

SAKLALAN, K.

Negative tension of vacuum tubes. p. 33. RADIO. (Ministerstvo na poshtite, telegrafite, telefonite i radioto itTsentratniia suvet na dobrovolnata organizatsiia za sudeistvie na otbranata) Sofiya. Vol. 4, no. 5, 1955

SOURCE: East European Accessions List, (EEAL), Library of Congress
Vol. 4, No. 12, December 1955

Partition paper chromatography of some organic acids.
Janina Opieńska-Blauch, Olga Szklarska-Szyngierska, and
Marek Kania (Inst. of Physiol. Chem., Marja Curie-Skłodowska
Univ., Lublin, Poland). *Ann. Univ. Mariae Curie-Skłodowska*
Sect. D, 5, 221-22 (1961) (English).—The possibility of
using the best results as regards the stability of revealed
spots, although bromothymol blue seemed to be more sensi-
tive. The locations in ultraviolet light. The spots were
made both with aq. solns. of single chemically pure acids,
and with their mixts. The mean R_F confidence intervals
well as standard deviations and 95% confidence intervals
Although the size and intensity of spots might be expected
proportional to the content of acids, this phenomenon is clearly
from their content; no doubt of this relation in question.
connected with the structure of the acid and its effect on R_F values.
An attempt was made to find a numerical relation between
the structure of a chem. group and its effect on R_F values
of org. acids. The theoretical R_F value of a group constitut-
ing the difference between 2 acids can be calculated from a con-
stant of the chromatographic system. E. A. Ackermann

Saklowska-Szymonowa, O.

Effect of copper on growth and glucose metabolism in the fluid cultures of *Escherichia coli*. O. Saklowska-Szymonowa (Physiol. Chem. Acad. Med. Lublin, Poland). *Acta Microbiol. Polon.* 2, 99-110 (1953) (English summary). The effect of various concns. of Cu on *E. coli* in Koser's medium was studied. The growth of bacteria was evaluated approx. by the nephelometric method. The glucose uptake was observed by paper chromatography. A BuOH-pyridine, H₂O (45:25:40) mixt. was used as the solvent. Reducing compds. were detected by spraying ammoniacal AgNO₃ soln. (modified test). Cu (10^{-4} - 10^{-5} M) showed complete inhibition of growth and glucose metabolism; 10^{-4} M Cu caused total inhibition of glucose uptake and a marked inhibition of growth as well as of the pH decrease; and 10^{-5} M Cu retarded glucose uptake. The toxic influence of Cu could be reversed or prevented by cysteine, dithiothreitol, and diethyl thiocarbamate. These results were interpreted to suggest that the SH groups are important in the mechanism of the toxic action of Cu ions. In agreement with Schade's observations (*C.A.* 44, 2073), 2×10^{-4} M histidine was able to reactivate growth and glucose metabolism. Histamine and certain amino acids, however, do not have this effect. The detoxifying effect of KCN, as observed by Binkley, *et al.* (*C.A.* 39, 957), could not be confirmed. Attempts to remove Cu from the medium by the use of 8-quinolinol resulted in complete inhibition of growth and in partial inhibition of glucose uptake. An unknown reducing compd. was detected in cultures containing 8×10^{-4} M 8-quinolinol. Mg ions had no effect on Cu toxicity. A marked antagonism between Cu and Mo has been observed. Alina S. Szczesniak

KANSKI, M; SAKLAWSKA-SZYMONOWA, O. SZYMONA, M.

~~Asparagino-alpha-ketoglutaric (asparagino-glutamic) trans-~~
amination in Mycobacteriu. phlei. Postepy biochem. 2:83-84
1954.

(MYCOBACTERIUM,

phlei, asparagino-glutamic transamination)

(ASPARTIC ACID, metabolism

Mycobact.phlei, asparagino-glutamic transamination)

(GLUTAMATES, metabolism,

Mycobact.phlei, asparagino-glutamic transamination)

SHIMONA, M.; SAKLOVSKA-SHIMONOVA, O.

Hexosophosphoric ethers in acetone preparation of Mycobacterium tuberculosis H₃Ra and in Mycobacterium phlei. Biokhimiia 19 no.3: 295-298 My-Je 37 '54. (MLRA 7:8)

1. Laboratoriya fiziologicheskoy khimii Meditsinskoy akademii. Pol'sha, Lyublin.

(MYCOBACTERIUM TUBERCULOSIS,

hexosophosphoric ether in acetone prep.)

(MYCOBACTERIUM,

phlei, hexosophosphoric ethers in acetone prep.)

SAKLAWSKA-SZYMONOWA, O.

Transamination of basic amino acids in *Mycobacterium phlei*. Acta physiol. polon. 8 no.3:519-520 1957.

1. Z Zakladu Chemii Fizjologicznej A. M. w Lublinie. Kierownik: prof. dr J. Opienska-Blauth.

(AMINO ACIDS, metabolism,
Mycobacterium phlei, transamination (Pol))
(MYCOBACTERIUM, metabolism,
phlei, amino acids transamination (Pol))

OPIENSKA-BLAUTH, Janina; KARBOWNICKA, Jadwiga; SAKLAWSKA-SZYMONOWA, Olga

Methods of identifying amino acids of approximate Rf coefficients.
Ann.Univ.Lublin; sec. D 14:109-115 '59.

1. Z Katedry Chemii Fizjologicznej Wydziału Lekarskiego Akademii
Medycznej w Lublinie Kierownik: prof. dr Janina Opienska-Blauth.
(AMINO ACIDS chem)

SAKLAWSKA-SZYMONOWA, Olga

Transamination reactions in mycobacterium phlei. Ann. univ. Lublin
sec. D 15.91-103 '60.

1. Z Katedry i Zakładu Chemii Fizjologicznej Wydziału Lekarskiego
Akademii Medycznej w Lublinie Kierownik: prof. Dr Janina Opienska-
Blauth.

(MYCOBACTERIUM metab)

SAKLEIN, I.A., prof.

Clinical and therapeutic aspects of silicotuberculosis in the initial stages of its development. Tuberkulozis 13 no.9:261-264 S '60.

1. A Szverdlovsk-i Tbc Intezet igazgatoja. A szerkesztobizottsag felkeresere irt kozlemeney
(TUBERCULOSIS, PULMONARY compl.)
(SILICOSIS)

SAKLEJN, I.A.

Results of pneumoperitoneum therapy in pulmonary tuberculosis. Tuberk.
Kerdesei 4 no.2:1-2 June 1951. (CML 20:9)

87031

S/129/60/000/012/006/013
E193/E283

18 6200

AUTHORS: Shmykov, A. A., Doctor of Technical Sciences,
Professor and Saklinskiy, V. S., Engineer

TITLE: The Effect of Allotropic Transformations on
Sintering of Iron Powder

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov,
1960, No. 12, pp. 26-30 and 35-36

TEXT: The phenomenon of shrinkage during sintering of iron powder (carbon content = 0.05%) was studied by dilatometric measurements. The analysis of experimental results showed that the coefficient of linear shrinkage, due to sintering, begins to change at a temperature corresponding to the recrystallization temperature which, in the case of iron, lies between 450 and 500°C. Any shrinkage taking place below 500°C is due only to relative movement of the powder particles during thermal expansion of the compact and due to the decrease of the initial porosity. The rapid increase in the intensity of shrinkage above the recrystallization temperature is associated with the growth of new grains in the individual, plastically deformed, powder particles. This growth affects the particle boundaries by distorting and displacing

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E193/E283

The Effect of Allotropic Transformations on Sintering of Iron Powder

then; the latter effect brings about the formation of new interfaces, reduces the porosity of the compact and initiates the process of sintering. The shrinkage coefficient reaches its maximum value at temperatures at which phase transformations take place (723-900°C in the case of iron). At temperatures above Ac_3 , the coefficient of shrinkage attains its minimum value. The results of experiments in which the effect of sintering temperature on bending strength of sintered compacts was studied, show that the effect of temperature becomes noticeable only starting from about 500°C; with the temperature increasing from 723 to 900°C (from Ac_1 to Ac_3), the strength of sintered compact rapidly increases, while sintering at temperatures above 900°C brings about stabilization of the properties of the sintered compact without any significant increase in its strength. The impact strength of sintered compact changes with the sintering temperature, in the same manner. Experiments, in which the effect of the duration of sintering on shrinkage was studied, showed that if sintering is

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The Effect of Allotropic Transformations on Sintering of Iron Powder

carried out at temperatures above A_{c3} , no advantage is gained by increasing the sintering time above 1 h. Based on the results of the present investigation, the following procedure is recommended for preparation of sintered iron components of increased strength: 1 - compacting; 2 - 1.5 to 2.5 h sintering at 875°C ; 3 - pressing, with final shape-forming; 4 - final sintering at 1000 to 1050°C for no longer than 1 h. A. S. Sarvina and V. K. Svetovidov participated in this work. There are 8 figures, 2 tables and 1 Soviet reference.

ASSOCIATION: Vsesoyuznyy zaochnyy mashinostroitel'nyy institut
i Nauchno-issledovatel'skiy institut tekhnologii
avtomobil'noy promyshlennosti
(All-Union Correspondence Institute of Machine
Building and Technological Scientific Research
Institute of the Automobile Industry)

Card 3/3

SHMYKOV, A.A. prof., doktor tekhn.nauk, SAKLINSKIY, V.S., inzh.; Prinimali
uchastiye: SARVINA, A.S.; SVETOVIDOV, V.K.

Relation of iron powder sintering to allotropic transformations.
Metalloved. i term. obr. met. no.12:26-36 D '60. (MIRA 13:12)

1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut i Nauchno-
issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.
(Sintering) (Allotropy)

USSR/Metals - Powder Metallurgy

Mar 51

"Metal-Ceramic Products Out of the Waste of Ball-Bearing Steel," V. S. Rakovskiy, Cand Tech Sci, V. V. Saklinskiy, I. N. Smirnova, Engineers, Oryavtoprom

"Litey Proizvod" No 3, pp 25-27

Investigation to establish possibility of applying methods of powder metallurgy to use of waste materials obtained at ball-bearing plants in the form of very fine powder-like chips. Process was studied

195T53

USSR/Metals - Powder Metallurgy (Contd) Mar 51

regarding manuf of bearing-nuts, porous anti-friction bushings and friction lining. Method proved considerably more efficient than use of waste by remelting.

195T53

SAKLINSKIY, V. V.

PA 195T53

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Sintered friction materials. V. V. Saklinskii and V. S. Rakovskii. *Automobil. i Traktor, Prom.* No. 6, 13-14 (1951).—Mixts. contg. 93-73% Cu powder, 5-25% SiO₂ powder, and 2% powd. asbestos were subjected to 2-8 tons/sq. cm. pressure (no lamination or cracking was observed) and then sintered in a H atm. at 850-970°. Results indicated that with increasing percentage of the nonmetallic components in the mixt., there was a decrease in the d. of the product which explained the decreased plasticity of the mixt. An increase in pressure and sintering temp. leads to increased hardness. The optimal mixt. contained 78% Cu powder, 20% SiO₂ powder, and 2% powd. asbestos; this mixt. was subjected to 4.0 tons/sq. cm. pressure and sintered for 1.5 hrs. at 850°; the coeff. of friction at 40° was 0.217 (measured on a TI-1 machine with 19 kg./sq. cm. load and 7.4 m./sec. speed with oil lubrication) and the wear was 0.001-0.004 mm. after 1 hr. Thus, powder metallurgical techniques produced friction materials of good quality (coeff. of friction > 0.16) for use in automobiles.
Paul W. Howerton

SAKLINSKIY, V.V.

Metals, Powdered

Wear resistance of metal-ceramic parts. Avt.trakt.prom. No. 6, 1952.

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